Resist Compositions with Polymers having 2-Cyano Acrylic Monomer

Cross Reference to Related Applications

Related applications are: US Patent Application Serial No. 09/266,342, filed March 11, 1999, now ~~pending~~, titled "Photoresist Compositions with Cyclic Olefin Polymers and Additive"; US Patent Application Serial No. 09/266,343, filed March 11, 1999, now ~~pending~~, titled "Photoresist Compositions with Cyclic Olefin Polymers and Hydrophobic Non-Steroidal Alicyclic Additives"; US Patent Application Serial No. 09/266,341, filed March 11, 1999, now US Patent 6,124,074, titled "Photoresist Compositions with Cyclic Olefin Polymers and Hydrophobic Non-Steroidal Multi-Alicyclic Additives"; and US Patent Application Serial No. 09/266,344, filed March 11, 1999, ~~now~~ ~~pending~~ titled "Photoresist Compositions with Cyclic Olefin Polymers and Saturated Steroid Additives". Additional related applications are: US Patent Application Serial No. 09/566,395, filed May 5, 2000, now 6251560, titled "Photoresist Compositions with Cyclic Olefin Polymers Having Lactone Moiety"; US Patent Application Serial No. 09/566,397, filed May 5, 2000, now abn., titled "Copolymer Photoresist with Improved Etch Resistance"; US Patent Application Serial No. 09/639,784, filed August 16, 2000, now 6391521, titled "Resist Compositions Containing Bulky Anhydride Additives"; and US Patent Application Serial No. 09/639,784, filed August 16, 2000, now 6391521, titled "Resist Compositions Containing Lactone Additives." The disclosures of the above applications are incorporated herein by reference.

Background of the Invention

In the microelectronics industry as well as in other industries involving construction of microscopic structures (e.g. micromachines, magnetoresistive heads, etc.), there is a continued desire to reduce the size of structural features. In the microelectronics industry, the desire is to reduce the size of